

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) An optical drive device, comprising:
an optical drive controller adapted to couple to a laser diode driver and to cause a laser diode driver to provide signals to drive a laser diode to output a modulated light signal corresponding to data to be written to an optical disk, the optical drive controller testing timing characteristics of an electrical channel between the optical drive controller and the laser diode driver and, ~~in response to the testing of an electrical channel between the optical drive controller and the laser diode driver,~~ generating a set of calibration signals to program a laser diode drive characteristic associated with the laser diode driver in response to the testing of the electrical channel between the optical drive controller and the laser diode driver ~~the set of calibration signals responsive to the timing characteristics tested by the optical drive controller.~~
2. (Currently amended) The optical drive device of claim 1, wherein the optical drive controller outputs one or more electrical test signals to ~~[[a]]~~ the laser diode driver through ~~an~~ the electrical channel between ~~[[a]]~~ the laser diode driver and the optical drive controller, the optical drive controller receiving one or more electrical monitor signals generated by the laser diode driver in response to the one or more test signals, the one or more electrical monitor signals received through ~~an~~ the electrical channel between ~~[[a]]~~ the laser diode driver and the optical drive controller and characterizing the timing characteristics of the electrical channel, the optical drive controller generating one or more calibration signals responsive to the one or more electrical monitor signals.

3. (Currently amended) The optical drive device of claim 1, wherein the optical drive controller generates a first control signal to set a laser diode driver in a calibration mode for a calibration process and generates a second control signal to set a laser diode driver in a normal operation mode.

4. (Original) The optical drive device of claim 1, wherein the calibration signals adjust circuits within the optical drive controller.

5. (Original) The optical drive device of claim 1, wherein the calibration signals adjust circuits within a laser diode driver.

6. (Original) The optical drive device of claim 1, wherein the optical drive controller outputs a test signal to a laser diode driver, the optical drive controller receiving a monitor signal generated in response to the test signal, the optical drive controller outputting a second test signal, responsive to the monitor signal, for calibrating a laser diode driver in an iterative process.

7. (Original) The optical drive device of claim 6, wherein the optical drive controller generates a control signal to set a laser diode driver in a calibration mode for a calibration process and generates a control signal to set a laser diode driver in a normal operation mode following the iterative process.

8. (Currently amended) An optical drive device, comprising:
an optical drive controller; and
a laser diode driver providing drive signals to a laser diode, the laser diode driver responsive to the optical drive controller to selectively provide read drive signals and or write drive signals to the laser diode, the write drive signals causing the laser diode to output a modulated light signal corresponding to data to be written to an optical disk; and

a WSR channel coupling the optical drive controller to the laser diode driver, the WSR channel communicating read signals and write signals between the optical drive controller and the laser diode driver,

the optical drive controller outputting timing test signals over the WSR channel, the laser diode driver receiving the timing test signals from the WSR channel and characterizing operating on the timing test signals from the WSR channel to responsively generate a monitor signal, the laser diode driver providing the monitor signal to the optical drive controller.

9. (Previously Presented) The optical drive device of claim 8, wherein the optical drive controller generates a calibration signal in response to the monitor signal and, responsive to the calibration signal, programs a drive characteristic of a laser diode driver to accommodate a timing characteristic of the WSR channel between the optical drive controller and a laser diode driver determined by testing.

10. (Previously Presented) The optical drive device of claim 9, wherein the WSR channel couples through a flexible cable and wherein the laser diode driver and the laser diode are mounted on an optical head of the optical drive device.

11. (Original) The optical drive device of claim 9, wherein the optical drive controller outputs a first control signal to set the laser diode driver in a calibration mode for a calibration process and generates a second control signal to set the laser diode driver in a normal operation mode.

12. (Currently amended) The optical drive device of claim ~~[[7]]~~ 8, wherein the optical drive controller generates a calibration signal in response to the monitor signal and, responsive to the calibration signal, programs a drive characteristic within the optical drive controller to accommodate a characteristic of the ~~signal~~ WSR channel between the optical drive controller and a laser diode driver determined by testing.

13. (New) The optical drive device of claim 8, further comprising a communication port configured in the laser diode driver to receive a control signal from the optical drive controller.